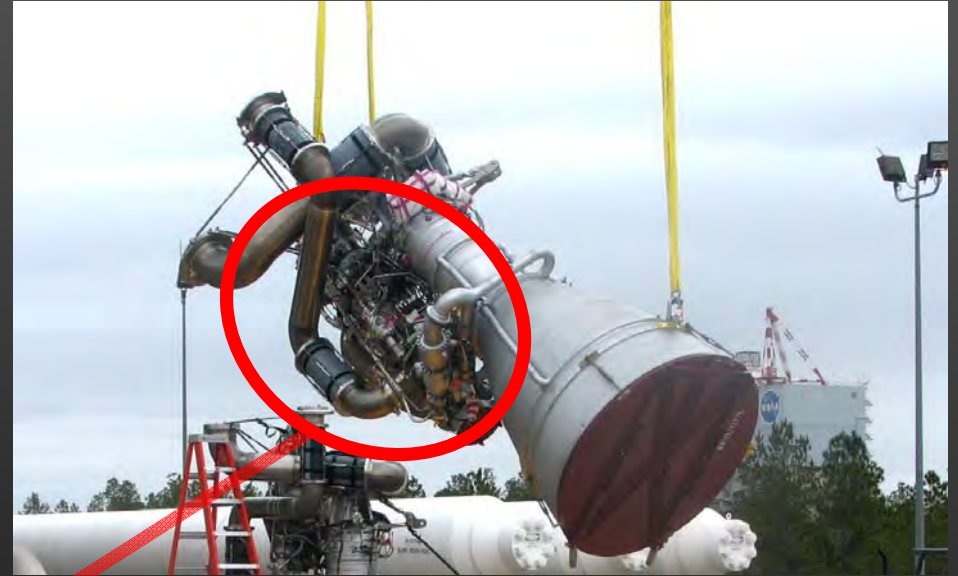


UTILIZING STRUCTURED LIGHT SCANNING TECHNOLOGY FOR THE DEVELOPMENT OF STRUCTURAL DYNAMIC ANALYSIS MODELS OF LIQUID ENGINE HARDWARE

Luke Scharber NASA MSFC ER41

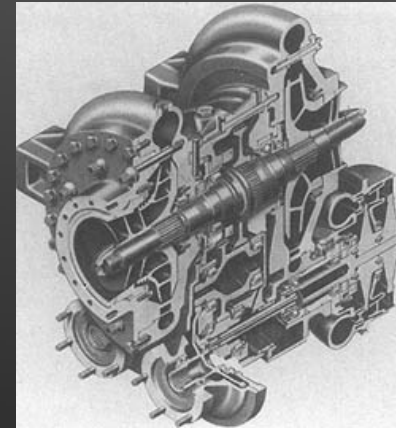




Turbopump location

ORBITAL CRS-3 FAILURE





(H-1 Turbopump Cutaway)

AJ-2658/NK-33 TURBOMACHINERY



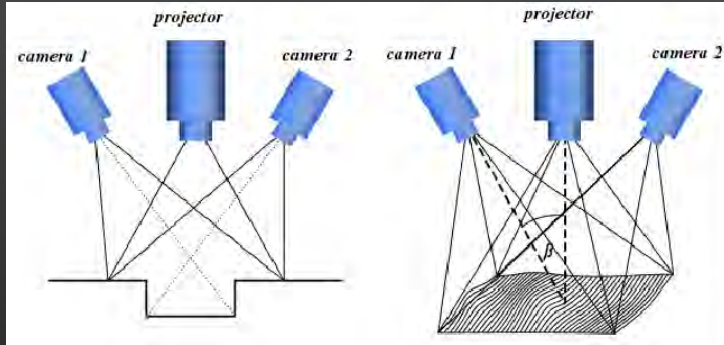
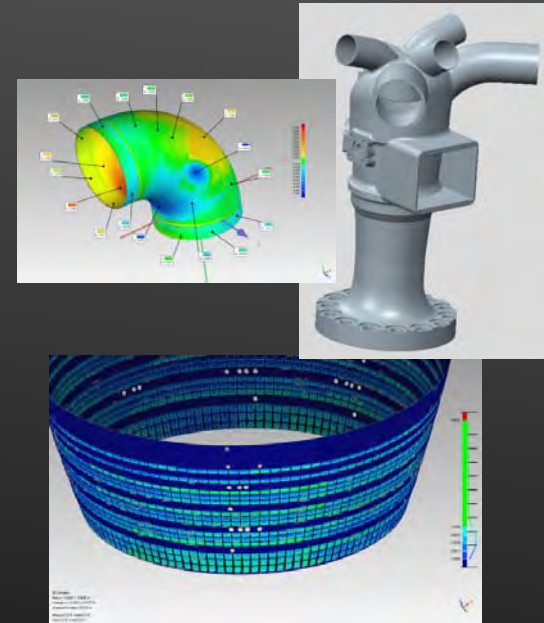
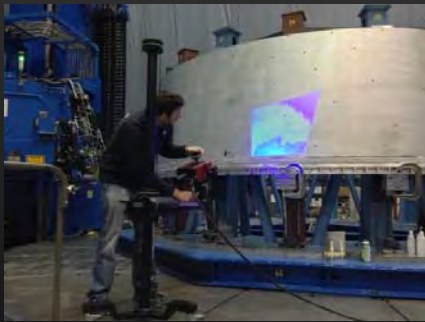
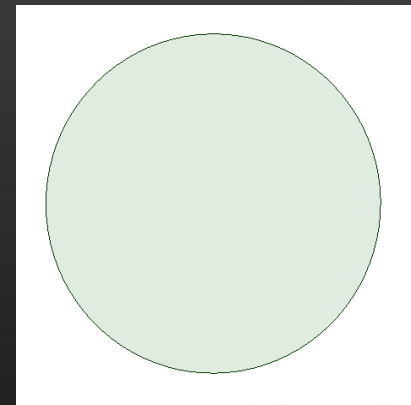
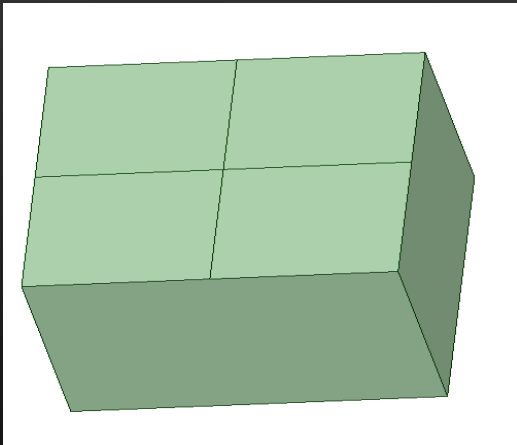
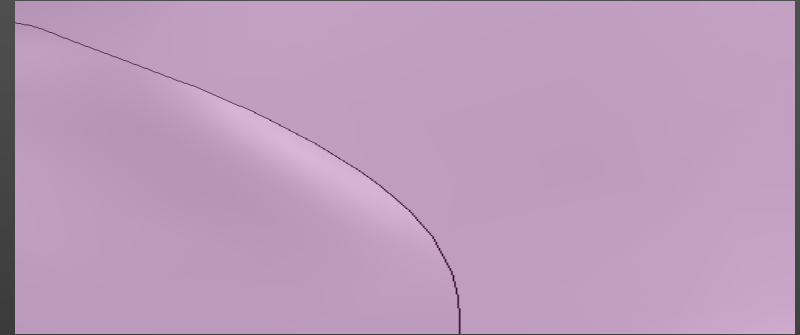
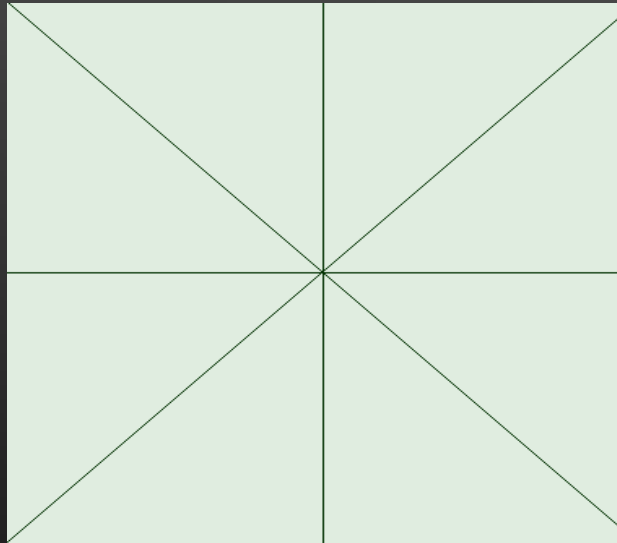


Image Credit: Wikimedia /Vanessa Ezekowitz



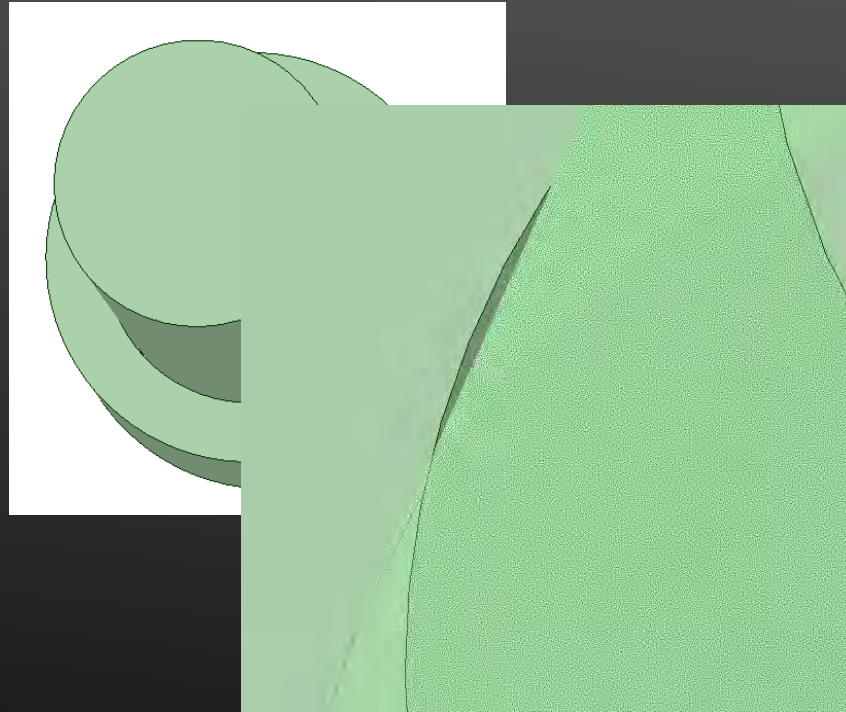
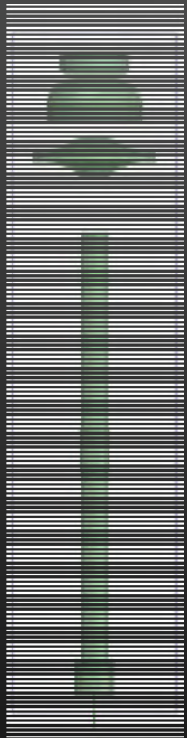
STRUCTURED LIGHT SCANNING





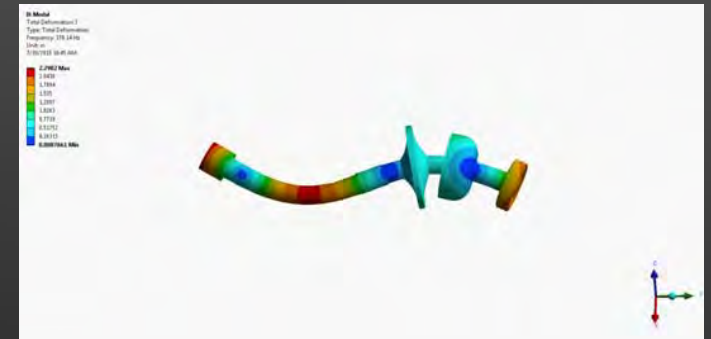
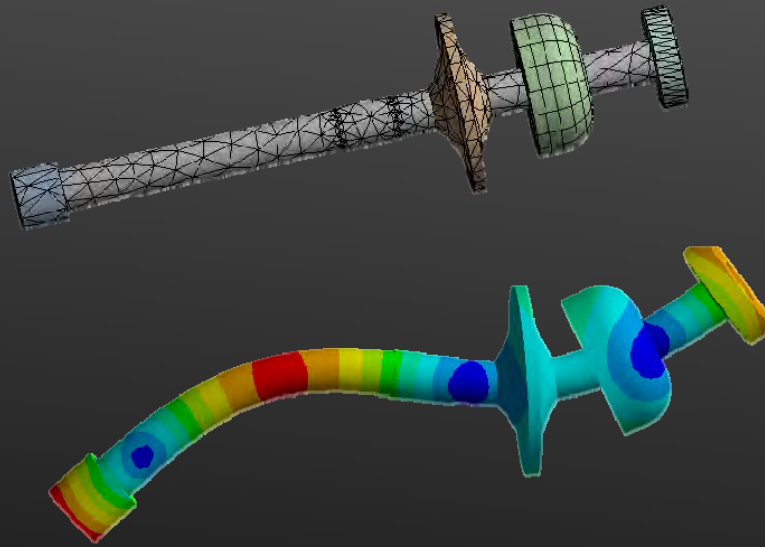
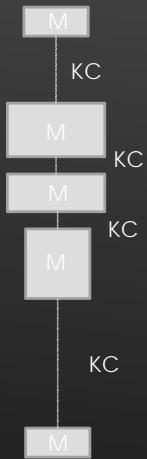
ISSUES PERTAINING TO SCANNED
SOLUTIONS
MODEL GEOMETRIES





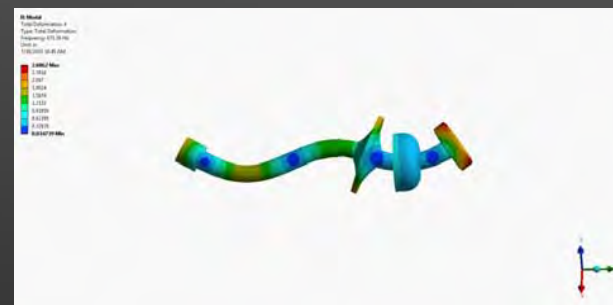
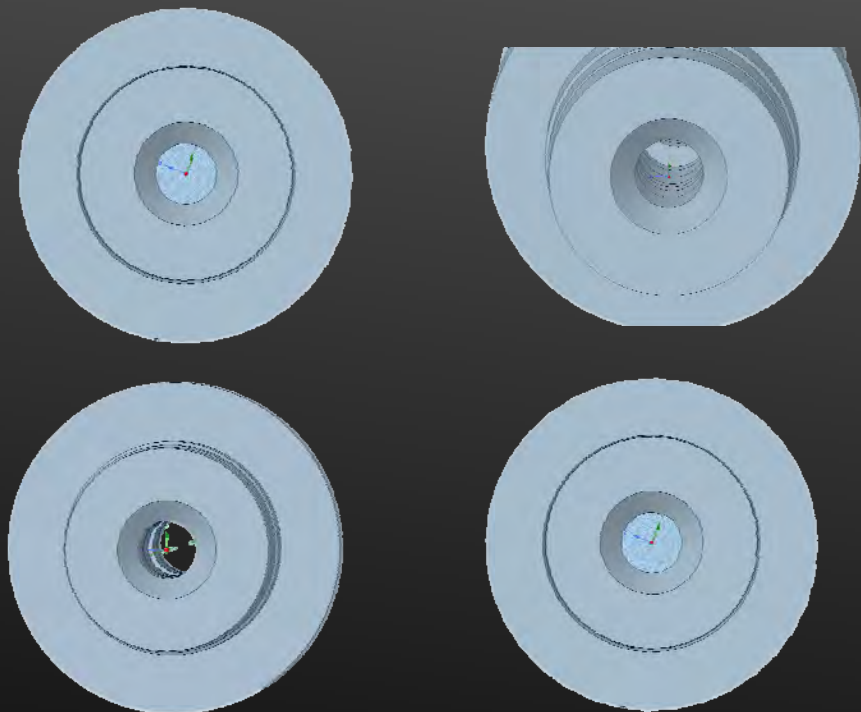
STRUCTURED LIGHT MODEL OPTIMIZATION FOR ANALYSIS





MODAL ANALYSIS OF A TURBOPUMP ROTARY SHAFT





DATA COLLECTION FROM MODAL ANALYSIS



QUESTIONS?

Thanks!

